

## **EXHIBIT K**

**UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF MASSACHUSETTS**

United States of America, State of  
Arizona, State of California, District of  
Columbia, State of Florida,  
Commonwealth of Massachusetts,  
Commonwealth of Pennsylvania, and  
Commonwealth of Virginia

Plaintiff,

v.

American Airlines Group Inc.,

and

JetBlue Airways Corporation,  
Defendants.

Case No. 1:21-cv-11558-LTS

**CONFIDENTIAL**

**DECLARATION OF NATHAN H. MILLER, PH.D.  
IN SUPPORT OF PLAINTIFFS' RESPONSE TO DEFENDANTS' DAUBERT  
MOTION AND MOTION IN LIMINE CONCERNING PLAINTIFFS' EXPERT'S  
MERGER SIMULATION MODEL**

September 9, 2022

I, Nathan H. Miller, declare and state as follows:

1. I submit this declaration in further support of Plaintiffs' Response to Defendants' *Daubert* Motion and Motion in *Limine* Concerning Plaintiffs' Expert's Merger Simulation Model ("Motion").
2. I am a Professor at the McDonough School of Business at Georgetown University in Washington, DC. I earned my B.A. in Economics and History from the University of Virginia in 2000, and my Ph.D. in Economics from the University of California at Berkeley in 2008. I served as a Visiting Professor at Toulouse School of Economics in 2019 and 2020. Prior to joining Georgetown University in 2013, I served as a Staff Economist at the U.S. Department of Justice from 2008–2013.
3. My area of expertise is in the field of industrial organization, which is the area of economics that addresses the behavior of firms, industries, and their markets. Within that field I have specialized in antitrust economics, with a recent focus on collusion and the competitive effects of mergers. I have taught graduate level courses on Microeconomics, Industrial Organization, Firm Analysis and Strategy, and Strategic Pricing. My research has been published in leading economics journals, including the American Economic Review, Econometrica, and the RAND Journal of Economics, among others. I am an editor at the Journal of Law and Economics and am on the editorial boards of the Review of Industrial Organization and the International Journal of Industrial Organization.
4. In addition to my academic work in the area of antitrust economics, I have provided economic analysis for antitrust litigation matters. I served as a Staff Economist at the U.S. Department of Justice ("DOJ"), where I received an Award of Distinction for my work on a high-profile merger review. As a Staff Economist for the DOJ, I analyzed a number of merger matters across multiple industries, including Delta Air Lines/Northwest Airlines, Bazaarvoice/PowerReviews, AT&T/T-Mobile, and Ticketmaster/Live Nation. I also analyzed the competitive effects of the Express Scripts acquisition by Cigna on behalf of the merging parties. Finally, I have been retained by the DOJ, Federal Trade Commission (FTC), and Canadian Competition Bureau as a testifying expert on several merger-related matters.

5. I was asked by the DOJ to analyze the likely competitive effects of the Northeast Alliance (“NEA”), and on June 9, 2022 I submitted an expert report containing my analysis and opinions.<sup>1</sup> I was then asked by DOJ to review the expert reports filed on behalf of Defendants, evaluate their opinions, and respond to their criticisms of my conclusion that the NEA is likely to substantially lessen competition and harm consumers in many relevant antitrust markets. On August 8, 2022, I submitted an expert reply report.<sup>2</sup> In performing my analysis, I and my support staff have considered the relevant economics literature, as well as data, documents, and testimony produced or taken in this case.

6. I have now been asked by DOJ to review Defendants’ Motion, as well as the supporting declarations submitted by Defendants’ experts.

7. In their Motion, Defendants have raised an issue regarding my model’s use of a static formula to allocate revenues between Defendants. In particular, they argue that this approach does not “fit” the facts of the case.<sup>3</sup> On the contrary, as I explained in my initial and reply reports, this approach fits the facts of the NEA in general, and fits the revenue sharing formula outlined in the Mutual Growth Incentive Agreement (“MGIA”) in particular.

8. First, Defendants’ argument too narrowly focuses on the MGIA and ignores the broader NEA. In particular, it completely ignores that the NEA starts with Defendants coordinating capacity on NEA routes, the import of which I described in my initial and reply reports. Defendants’ private incentives under the MGIA may play a role in their discussions during the joint planning process, but the overarching incentive underlying the joint planning process is to maximize their joint profits. In both my initial and reply reports, I analyzed the terms of the NEA, determined that the overarching incentive would be to maximize joint profits, and then highlighted that this overarching incentive is consistent with evidence from Defendants that describes the objective of their joint capacity planning.<sup>4</sup>

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<sup>1</sup> Expert Report of Nathan H. Miller, *in the matter of United States of America, et al. v. American Airlines Group Inc., et al.*, June 9, 2022 (“Miller Report”).

<sup>2</sup> Expert Reply Report of Nathan H. Miller, *in the matter of United States of America, et al. v. American Airlines Group Inc., et al.*, August 8, 2022 (“Miller Reply Report”).

<sup>3</sup> Motion, p. 9.

<sup>4</sup> Miller Report, § 4.2.3; Miller Reply Report, ¶¶ 24, 40, 42, 185.

9. Second, even more narrowly focusing on the MGIA, the static formula I use in my simulation closely matches the economics of the terms of the MGIA that are operative at the time pricing decisions are made. As I explained in my deposition, capacities are (jointly, in coordinated fashion) set, and then prices are set.<sup>5</sup> This means that, when prices are chosen, capacities are, in fact, fixed, precisely as I have implemented in my model. Said another way, at the time prices are set, the pricing decision no longer affects how joint revenues are to be divided. Therefore, it would be inconsistent with the terms of the NEA to model the pricing decision as if the formula were still dynamic at this stage in the way Defendants suggest—i.e., as if setting a lower price increases the share of joint revenue one Defendant gets to keep.

10. Third, the specific split I implement in my model—57% for JetBlue, 43% for American—is largely irrelevant to my concentration measures and the overcharge I computed using my simulation model. Consider a hypothetical NEA market in which the Defendants only offer nonstop products. In such a market, all Defendant products are fully within the NEA’s scope, and therefore fully subject to revenue sharing; that is, one Defendant acquires a given share  $\theta$  of the revenues from all of the Defendants’ products in the market, and the other Defendant gets  $1 - \theta$ . As I showed in my initial report, appendix section 12.1.3, in markets like this, the modified HHI formula reduces to the standard HHI formula;  $\theta$  does not appear, which means the specific split of revenues does not matter.<sup>6</sup> The same result applies to the simulation model. In this type of market, the first order conditions that characterize the model, which are laid out in appendix section 14.2 of my initial report, simplify in such a way that all references to the revenue sharing split drop out.<sup>7</sup> The intuition for these results

<sup>5</sup> Deposition of Nathan H. Miller, August 17, 2022, p. 187.

<sup>6</sup> Miller Report, appendix § 12.1.3. Specifically, if the two Defendants are indexed as  $m$  and  $n$ , the formula reduces to  $(s_m + s_n)^2 + \sum_{i \notin \{m, n\}} s_i^2$ , which is the standard HHI formula. The specific sharing parameter  $\theta$  does not appear.

<sup>7</sup> Miller Report, appendix § 14.2. Specifically, consider the second version of the first order condition in ¶ 401:

$$0 = \beta_{i(j),j} q_j(p) + \sum_{j'} \beta_{i(j),j'} \left\{ \frac{dq_{j'}}{dp_j} (p_{j'} - c_{j'}) \right\}$$

As discussed in ¶ 376, the hypothetical under consideration is characterized by:

- If  $i \notin \{m, n\}$ :  $\beta_{ij} = 1$  iff  $i(j) = i$ , 0 otherwise
- $\beta_{mj} = \theta$  iff  $i(j) \in \{m, n\}$ , 0 otherwise
- $\beta_{nj} = 1 - \theta$  iff  $i(j) \in \{m, n\}$ , 0 otherwise.

Plugging these  $\beta$  in and simplifying yields:

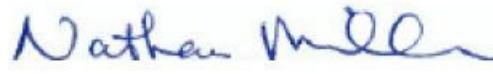
- $0 = q_j(p) + \sum_{j' | i(j')=i(j)} \left\{ \frac{dq_{j'}}{dp_j} (p_{j'} - c_{j'}) \right\}$  iff  $i(j) \notin \{m, n\}$
- $0 = q_j(p) + \sum_{j' | i(j') \in \{m, n\}} \left\{ \frac{dq_{j'}}{dp_j} (p_{j'} - c_{j'}) \right\}$  iff  $i(j) \in \{m, n\}$ .

Thus, the specific sharing parameter  $\theta$  drops out of the model.

is that, if all products in a market are fully subject to revenue sharing, then the two Defendants have perfectly aligned incentives.<sup>8</sup> For example, if a certain set of prices maximize total profits for American and JetBlue, then those same prices also maximize 57%, or 43%, or 80%, of total profits for American and JetBlue.

11. Thus, the 57/43 split is only relevant to the extent that there are some products not fully within the NEA's scope within a given market. As I explained in my initial report, in NEA nonstop overlap markets revenue from both Defendants' nonstop products lies fully within scope. Because the vast majority of traffic in these markets is nonstop, the vast majority of Defendants' revenues are fully subject to the revenue-sharing agreement, and the specific 57/43 split does not matter.<sup>9</sup>

12. Also in support of Defendants' motion, Professor Carlton filed a Declaration making several assertions, including a new assertion suggesting that my model's prediction of harms is affected by marginal costs being negative.<sup>10</sup> This new assertion is unsupported by any of Professor Carlton's previously disclosed analyses, so I do not know what his basis is for such a claim. Furthermore, it is the case that none of the predicted effects in my simulation derive from the fact of costs being negative. As I explained in my reply report, that fact is not relevant to how the simulation operates.<sup>11</sup> Rather, as I discussed in both my initial report and my reply report, the measure of "cost" Professor Carlton is likely using reflects ancillary revenue and other indirect profit opportunities that are not included in the model, which would often completely explain the fact he identifies of the measure being negative.<sup>12</sup>




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Nathan H. Miller  
Date: September 9, 2022

<sup>8</sup> Miller Report, ¶ 60.

<sup>9</sup> Miller Report, ¶ 182.

<sup>10</sup> Declaration of Dennis W. Carlton in Support of American Airlines Group Inc. and JetBlue Airways Corporation's *Daubert* Motion and Motion in *Limine* Concerning Plaintiffs' Expert's Merger Simulation Model ("Carlton Declaration"), ¶ 15. I responded to his previously disclosed assertions in my reply report. See Miller Reply Report, § 4.2.

<sup>11</sup> Miller Reply Report, § 4.2.2.

<sup>12</sup> Miller Report, § 6.3.2; Miller Reply Report, § 4.2.2.